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Broome Technical Community College

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CATALOG

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WHO WE ARE

STATE UNIVERSITY OF NEW YORK

WILLIAM S. CARLSON ----- President
LAWRENCE L. JARVIE ----- Executive Dean for Institutes
and Community Colleges

Broome Technical Community College is
supervised by the State University of New York

BROOME TECHNICAL COMMUNITY COLLEGE

BOARD OF TRUSTEES

PAUL F. TITCHENER, *Chairman* ----- President
E. H. Titchener and Co.
DARWIN R. WALES, *Vice-Chairman* ----- Attorney
MISS LINDA STANFORD, *Secretary* ----- Auditor
Endicott Johnson Corp.
BERNARD H. CHERNIN, *Treasurer* ----- Attorney
F. CLYDE EGGLESTON ----- Broome County Clerk
DR. JAMES T. IVORY ----- Dentist
ROBERT F. KELLY ----- Binghamton Fire Department
ARNOLD F. MITCHELL ----- Managing Director
General Contractors Association
E. ALLAN WILLIFORD ----- President, Link Aviation, Inc.

ADMINISTRATION

C. C. TYRRELL ----- President
B.S., M.S., *Purdue University; Professional Engineer*
JAMES E. MCVEAN ----- Dean
B.S., *Clarkson College of Technology; M.S., Cornell University*
HARVEY N. ROEHL ----- Director of Extension
B.S., *Cornell University; Professional Engineer*

FACULTY

BUSINESS TECHNOLOGY

- A. JAMES KALBAUGH ----- Associate Professor, Dept. Head
B.S., State College for Teachers at Albany;
Ed.M., University of Buffalo
- ROBERT L. CANN ----- Assistant Professor
B.S., Salem Teachers College; M.A., New York University
- WALTER TEDICK ----- Assistant Professor
B.S., University of Alabama
- DOLORES P. ZIAC ----- Instructor
B.S., State College for Teachers at Albany

CHEMICAL TECHNOLOGY

- JOHN KUSHNER ----- Professor, Dept. Head
B.S., Colorado School of Mines; M.S., Cornell University
- AXFORD L. BEAGLE ----- Associate Professor
Canton Agricultural & Technical Institute
B.S., Clarkson College of Technology
- GINO A. CANALE ----- Instructor
A.A.S., Broome Technical Community College
- DAVID FERGUS ----- Assistant Professor
B.S., Ohio University
- MICHAEL T. ORINIK ----- Associate Professor
B.S., Penn State University; M.S., Cornell University

DENTAL HYGIENE

- DUNCAN MACMILLAN ----- Professor, Dept. Head
D.D.S., New York University College of Dentistry
- PATRICIA A. MOKROHISKY ----- Instructor
D.H., Eastman School of Dental Hygiene; B.S., State Teachers
College at Cortland

ELECTRICAL TECHNOLOGY

- L. J. SITTERLEE ----- Professor, Dept. Head
Rochester Institute of Technology; B.S., M.S., Clarkson
College of Technology
- ROBERT B. BEERS ----- Assistant Professor
B.S., Tri-State College
- ANTHONY J. CAROLIN ----- Assistant Professor
B.S., Syracuse University
- WILLIAM DERVAY ----- Instructor
A.A.S., Broome Technical Community College

- DONALD W. EMMONS ----- Associate Professor
*Canton Agricultural & Technical Institute;
 B.S., Oklahoma A. & M. College*
- H. H. GRUBER ----- Assistant Professor
B.S., M.S., Ed.D., Penn State University
- RUSSELL J. PRATT ----- Assistant Professor
A.B., M.S., Middlebury College
- ROBERT L. REID ----- Instructor
A.A.S., Broome Technical Community College
- STEPHEN G. STEELE ----- Assistant Professor
B.S., Union College
- REYNOLD L. STONE ----- Assistant Professor
*Alfred Agricultural & Technical Institute;
 B.S., Carnegie Institute of Technology*
- PAUL P. YEH ----- Assistant Professor
*National Central University, Nanking, China;
 B.A., University of Toronto*

GENERAL EDUCATION

- LLOYD W. HARTMAN ----- Professor, Dept. Chairman
B.S., Syracuse University; M.A., Cornell University
- RICHARD E. BALDWIN ----- Associate Professor
A.B., Ed.M., University of Rochester
- FRANCIS P. CASELLA ----- Instructor
B.B.A., St. Bonaventure U.; A.B., M.A., Teachers College, Albany
- CLYDE E. CHAUNCEY ----- Associate Professor
A.B., Syracuse University; M.A., University of Rochester
- GEORGE A. ELLIOTT ----- Associate Professor
B.S., Middlebury College; M.A., Columbia University
- JOAN L. FOLEY ----- Librarian
*State Teachers College at Oneonta; B. S., State Teachers
 College at Geneseo*
- R. LEROY GREENWOOD ----- Associate Professor
A.B., Allegheny College; Ed.M., University of Buffalo

MEDICAL OFFICE ASSISTANTS

- NEVA M. ASH ----- Professor, Dept. Head
R.N., St. Luke's Hospital; B.S., New York University
- JOHN F. B. CLARK ----- Associate Professor
*B.S., Acadia University, Nova Scotia; M.A., University
 of Michigan*

MECHANICAL TECHNOLOGY

FRED SANDERS	-----	Professor, Dept. Head
	<i>B.S., Pratt Institute</i>	
HERBERT L. DURST	-----	Associate Professor
	<i>B.S., Drexel Institute of Technology</i>	
MARION A. FORBES	-----	Associate Professor
	<i>Professional Engineer</i>	
MICHAEL J. KAPRAL	-----	Associate Professor
	<i>State Teachers College at Oswego</i>	
IRWIN I. LAWN	-----	Assistant Professor
	<i>B.S., Stevens Institute of Technology</i>	
JOSEPH MILENSKY	-----	Instructor
	<i>Rensselaer Polytechnic Institute</i>	
DOUGLAS W. RITTENHOUSE	-----	Assistant Instructor
IRVIN C. SIMSER	-----	Associate Professor
	<i>B.S., Clarkson College of Technology; Professional Engineer</i>	
RICHARD E. BALDWIN	-----	<i>Director of Public Relations</i>
TRACY R. CONE	-----	<i>Financial Secretary</i>
DOROTHY R. TURNER	-----	<i>Secretary to the President</i>

WHAT WE ARE

THE COMMUNITY COLLEGE

Broome Tech is a two-year community college, a term that may need explanation. Nation-wide, community or junior colleges have had a remarkable growth in the past 25 years, from less than 7500 students in 1930 to more than 750,000 in 1955. The reason for this expansion may be seen as we look at the nature and purposes of Broome Technical Community College.

1. It seeks to provide educational opportunity for all who can benefit by it. The symbol of the community college is the open door, not the high hurdle. It makes higher education possible for many more high school graduates, including the earnest average student. The Extension Division also makes it possible for adults and employed persons to extend their education.

2. It provides low-cost education. Rising tuition fees are barring many a promising high school graduate from attaining his goal. The relatively small tuition fee at Broome Tech removes the financial barrier for many. Furthermore, by "bringing the college to the people," the student can live at home and save the cost of room and board. Approximately 65% of Broome Tech students live within commuting distance.

3. It is community-centered. This means several things. First, operating costs are met by the contributions of Broome County and other counties from which students may come and by New York State, as well as by student tuition. Second, the curriculums are geared to the needs of the area, and the community shares in the curriculum development by means of advisory committees. The word "Technical" in the college name reflects the industrial character of the Triple Cities. Third, the college is administered by a local Board of Trustees.

4. It is mainly concerned with offering "terminal" education, that is the preparation of young people for permanent employment after graduation. However, graduates in creasing numbers are finding the two years at Broome Tech an excellent foundation for continuing education at a four-year college.

Broome Technical Community College is co-educational with a student body of 400. Approximately 75% are men and 25% are women.

WHERE WE ARE

Broome County, an agricultural and industrial area, is in the Southern Tier of New York State. Its industries are largely concentrated in the population centers of Binghamton, Johnson City, Endicott and Vestal, together forming a community well known for its economic stability and community spirit.

The products of the major industries manufacturing shoes, business machines, cameras and photographic supplies, and aircraft trainers and components are known the world over. Smaller industries turn hundreds of diversified products. The combination of "big town" features with "small town" atmosphere makes the area an ideal one in which to work and live. The college is fortunate in its location and is proud to make its contribution to the community.

The new campus of Broome Technical Community College is located three miles north of Binghamton on U.S. Routes 11 and 12. Here in a suburban setting a \$3,000,000 plant has been constructed to serve the educational needs of the community. The campus consists of six buildings of modern functional design, an athletic field, and ample parking space.

ADMINISTRATION BUILDING—offices, library, business education, general education.

MECHANICAL-AUTOMOTIVE BUILDING—laboratories, shops, classrooms.

GYMNASIUM-STUDENT SERVICE CENTER—gymnasium, cafeteria, book store, student lounge, activities rooms.

ELECTRICAL TECHNOLOGY BUILDING—laboratories, shops, classrooms.

SCIENCE BUILDING—laboratories, classrooms for chemical technology, medical office assistants, dental hygiene.

MAINTENANCE BUILDING

WHAT CURRICULUMS WE OFFER

BUSINESS TECHNOLOGY

There is no doubt that the nation's industries would come to a standstill if the secretarial and office personnel should all go on leave at the same time. The amazing progress of industry in this century has been made possible, in part, by the efficiency of the people who handle the "paper work." Reports, memorandums, correspondence, requisitions, records, accounts, payrolls—these are the very heart of an industry.

Office work is the essential medium through which the various activities of an enterprise are fused together. The entire managerial functions of planning, organizing, coordinating, directing and controlling are dependent upon the facilitating services of the office.

Businessmen, office managers and other executives have co-operated in planning the Business Technology curriculum which, at present, offers training and education for two types of entering positions:

1. Secretaries to engineers
2. Clerical positions in sales, engineering and production offices

Both of these options should enable young men and women to advance to supervisory and managerial positions in business and industry.

The curriculum includes college-level business subjects along with general and technical subjects which make for a broad understanding of industry and industry.

CURRICULUM OUTLINE

ENGINEERING SECRETARIAL OPTION

TERM 1

(Fall Term)		Credit Hours
71	Communication Skills I	3
610	Business Mathematics I	3
630	Mechanical Drawing I	2
640	Accounting I	3
647	Survey of Business	3
	*, **, *** (See note below)	

TERM 2

(Winter Term)

72	Communication Skills II	3
91	Psychology	3
92	Economics I	3
611	Business Mathematics II	3
620	Science	3
641	Accounting II	3
	*, **, ***	

TERM 3

(Spring Term)

73	Communication Skills III	3
93	Economics II	3
603	Advanced Typewriting	3
606	Advanced Shorthand	3
642	Accounting III	3
658	Business Law I	3
621	Elements of Technology I	3

TERM 4

(Fall Term)		Credit Hours
81	Industrial Safety and First Aid	2
607	Transcription	3
653	Payroll and Social Security	3
659	Business Law II	3
622	Elements of Technology II	3
	Elective	3

TERM 5

(Winter Term)

75	Effective Speaking	3
601	Shop I	2
608	Technical Shorthand I	3
645	Principles of Machine Accounting	3
656	Office Practice I	4
	Elective	3

TERM 6

(Spring Term)

602	Shop II	2
609	Technical Shorthand II	3
657	Office Practice II	4
675	Business English	3
	Elective	3
	Elective	3

* Shorthand I, II

** Typewriting I, II

*** Transcription

These subjects will be offered (at no credit) for those persons who do not have sufficient training in these skills to pass screening tests at the beginning of Terms 1, 2, the first year.

Persons who have passed Typewriting and/or Shorthand will be expected to take Transcription for skill maintenance (no credit).

CURRICULUM OUTLINE

OFFICE ADMINISTRATION OPTION

TERM 1

(Fall Term)	Credit Hours
71 Communication Skills I _	3
610 Business Mathematics I _	3
630 Mechanical Drawing I _	1
640 Accounting I _	3
647 Survey of Business _	3
*, **, *** (See note below)	

TERM 2

(Winter Term)	
72 Communication Skills II _	3
91 Psychology _	3
92 Economics I _	3
611 Business Mathematics II _	3
620 Science _	3
641 Accounting II _	3
*, **, *** (See note below)	

TERM 3

(Spring Term)	
73 Communication Skills III	3
93 Economics II _	3
603 Advanced Typewriting _	3
642 Accounting III _	3
658 Business Law I _	3
Elective _	3

TERM 4

(Fall Term)	Credit Hours
81 Industrial Safety and First Aid _	2
643 Payroll and Social Security	3
644 Cost Accounting _	3
655 Office Work Methods _	3
659 Business Law II _	3
691 Personnel Administration _	3

TERM 5

(Winter Term)	
75 Effective Speaking _	3
645 Principles of Machine Accounting _	3
656 Office Practice I _	4
661 Office Organization and Management _	3
Elective _	3
Elective _	3

TERM 6

(Spring Term)	
657 Office Practice II _	4
662 Office Organization and Management _	3
675 Business English _	3
Elective _	3
Elective _	3

- ° Shorthand I, II
- °° Typewriting I, II
- °°° Transcription

These subjects will be offered (at no credit) for those persons who do not have sufficient training in these skills to pass screening tests at the beginning of Terms 1, 2, the first year.

Persons who have passed Typewriting and/or Shorthand will be expected to take Transcription for skill maintenance (no credit).

BUSINESS TECHNOLOGY

SHOP I, II (601, 602)

4 Credit Hours

A study of machines commonly found in a metal-processing shop. Observation and discussion of the materials used in industry to produce machines, appliances, containers, etc. Practice in processing metals, leading to acquaintance with technical and shop terms and an appreciation of what is done in machine shops.

ADVANCED TYPEWRITING (603)

3 Credit Hours

Continuation of basic skill building with emphasis on speed and advanced problems. Among the topics: rough drafts, technical data such as specifications, manuscripts, legal papers. (Pre-requisite, elementary typewriting or equivalent.)

ADVANCED SHORTHAND (606)

3 Credit Hours

A skill-building course founded upon basic theory which most students will have had in high school. Training in speed building, spelling, English grammar and punctuation, with dictation from various fields of business and industry. (Pre-requisite, elementary shorthand or equivalent.)

TRANSCRIPTION (607)

3 Credit Hours

Development of skill in reading shorthand notes and turning out from them a mailable manuscript on the typewriter. Persons not having previous shorthand training will transcribe from dictating-transcribing machines.

TECHNICAL SHORTHAND I, II (608, 609)

6 Credit Hours

Dictation of technical material to be transcribed on the typewriter. Further drives for speed of dictation. Building of the tech-

nical vocabulary found in chemical, electrical, mechanical, civil engineering. Use of specifications, contracts, and letters from these fields and the building construction industry. Use of standard secretarial references and dictionaries to check the accuracy of spelling and word meanings.

BUSINESS MATHEMATICS I, II (610, 611) 6 Credit Hours

Fundamental mathematical combinations and processes; the purpose and use of shortcut operations; simple and compound interest; bank, cash and trade discounts, markups and percentage. Logarithms and the use of the slide rule. The student is given ample use of these topics through numerous verbal problems; simple equations; geographical representation; basic statistics.

BUSINESS STATISTICS (615) 3 Credit Hours

A course dealing with the application of fundamental statistical principles to numerical data. Attention will be given to the use of statistics as a management tool.

SCIENCE (620) 3 Credit Hours

A general survey of the physical sciences. The significance of science in relation to modern living. The methods of science.

ELEMENTS OF TECHNOLOGY I, II (664, 665) 6 Credit Hours

The fundamental laws and theories of chemical, electrical and mechanical technology. Presented in lecture form with appropriate readings and practice material, this course will provide a wide background of technical terminology. (Pre-requisite, Science.)

MECHANICAL DRAWING (630)**2 Credit Hours**

Technical sketching and pictorial representation. Application of auxiliary views, sections and conventions used in orthographic projection. The types and presentation of threads, nuts, bolts, keys, keyways and locking devices, and assembly drawings. Discussion of shop processes and procedures to facilitate the understanding of drafting problems which arise in the industrial drafting room. Layout of work areas from building plans.

ACCOUNTING I (640)**3 Credit Hours**

The science of record keeping from the basic definition of terms and the fundamental accounting equating through books of original entry, final entry and trial balance. Numerous practical problems based on each topic.

ACCOUNTING II (641)**3 Credit Hours**

Adjusting, closing the books, worksheet, bad debts, depreciation, obsolescence, general and subsidiary ledgers. Problems and set.

ACCOUNTING III (642)**3 Credit Hours**

Columnar journals, partnerships, corporations, voucher system, analysis and interpretation of financial statements. Intensive work on a practice set taken from the field.

PAYROLL AND SOCIAL SECURITY (643) 3 Credit Hours

A comprehensive coverage of the legislation behind and practical application of accounting for social security and tax withholding from the standpoint of the employer.

COST ACCOUNTING (644)

3 Credit Hours

A study of job and process cost accounting. Cost systems, elements, classification, cycle of work, forms, records, reports, budgets, cost determination, standard costs, direct and indirect labor.

PRINCIPLES OF MACHINE ACCOUNTING (645)

3 Credit Hours

Based upon a thorough mastery of the principles of double entry accounting, this course includes the application of various types of machines to accounting, statistical, and payroll work. Acquaintance will be sought with punched card, electric and keyboard-operated systems. Numerous visual aids will be used, and visits will be made to local installations of these different types of equipment.

ADVANCED MACHINE ACCOUNTING (646)

3 Credit Hours

A continuation of the principles course, this deals with the application of the principles learned. Where practicable, experience will be given at observing and performing machine operations.

SURVEY OF BUSINESS (647)

3 Credit Hours

A fundamental course dealing with the history and development of business and industry from ancient times to the present day. Through it the student should obtain an appreciation of the activities of business organization, a view of some of the problems which business and industry must solve routinely.

PRINCIPLES OF CREDIT (648)

3 Credit Hours

A basic course covering a working knowledge of credits and collections; types of credit; credit department organization; credit reports and information; credit risk factors; collection procedures.

These and more scientific topics are founded upon basic knowledge gained here and in economics courses pre-requisite to this one.

SALESMANSHIP (650)

3 Credit Hours

The basic principles of sales and services with practical applications of those principles. Prospecting, product and service analysis, meeting objections, demonstrating, sales psychology, and preparation of sales presentations.

SALES MANAGEMENT (651)

3 Credit Hours

Development of techniques of control in the administration of sales forces. Incentive systems, territory planning, development of sales potentials, personnel problems peculiar to this field.

OFFICE WORK METHODS (655)

3 Credit Hours

A more specific effort in the methods area, dealing with clerical cost control, flow charts, preparation of office manuals, work simplification, forms development and control, office services.

OFFICE PRACTICE I, II (656, 657)

8 Credit Hours

Basic training in the operation of dictating machines, four types of adding-calculating machines, duplicating processes. Work in different departments of a hypothetical concern, rotating through mailing, stenographic, filing, statistical, library, advertising, purchasing, credit, billing, legal, treasurer, and sales manager. Emphasis on proper attire, desirable work attitudes, business ethics.

BUSINESS LAW I (658)

3 Credit Hours

A study of the basic principles of contracts, involving the requisites for valid contracts, parties to the contracts, offer and acceptance, performance and discharge. Applications of contracts to agency. Study of the legal aspects of partnerships and corporations, real estate law.

BUSINESS LAW II (659)**3 Credit Hours**

A continuation of the study of contracts as applied to sales, bailments, carriers, warehousemen. A study of negotiable instruments, the rights and obligations associated with them. Survey of bankruptcy.

OFFICE ORGANIZATION AND MANAGEMENT I, II**(661, 662)****6 Credit Hours**

A comprehensive course correlating and integrating all phases of the science of office management. These courses deal with all phases of the following elements of that science: organizational, human, physical, operational, and control.

METHODS OF WORK MEASUREMENT AND SIMPLIFICATION (663)**3 Credit Hours**

Purposes of measurement. Difficulties commonly experienced. Units of measurement for different types of clerical work. Costs. Use of the data gathered.

INSURANCE (667)**3 Credit Hours**

A study of the type of coverage available for different risks encountered in business and industry as well as private life.

REAL ESTATE (669)**3 Credit Hours**

An introduction to the services expected of a real estate broker and his salesman, equipment needed, listings, securing prospects, property, making the sale, financing, professional standards.

BUSINESS ENGLISH (675)**3 Credit Hours**

An application of the art of communication to the business world. Students work specifically with composition and dictation of business correspondence of all types. Preparation of reports, articles, planning and presentation of speeches.

PERSONNEL ADMINISTRATION (691) 3 Credit Hours

Based upon a fundamental knowledge of psychology, the course embraces such subjects as personal adjustment to the business or industrial environment, social organization of business, motivation, incentives, employee attitudes, morale. Interviewing, job analysis, appraisal and placement, training, merit rating, employee relations, and wage administration are dealt with.

ECONOMIC GEOGRAPHY (692) 3 Credit Hours

A study of the geographic reasons behind the economic trends apparent in the countries of the world, the economic areas of the United States. Particular reference to New York State.

**INDUSTRIAL ORGANIZATION AND MANAGEMENT
(695) 3 Credit Hours**

Introduction to the major functions or departments of industry, their inter-relationship, and how they are brought together through organization. Instruction in the preliminary phases of methods, cost, production control, produce development, finance, physical facilities, quality control, plant engineering, industrial relations, job evaluation, sales, advertising, budgets, records.

FUNDAMENTALS OF SUPERVISION (697) 3 Credit Hours

A consideration of the problems faced by the supervisor in his day-to-day relations with co-workers. The factors necessary in the selection, development, and promotion of people to supervisory posts. (Pre-requisite, Personnel Administration.)

PUBLIC RELATIONS (698) 3 Credit Hours

Through lectures, readings and discussions, the development of the main principles and theories of public relations with application to actual cases.

CHEMICAL TECHNOLOGY

FORTUNE magazine predicts that this will be known as "The Chemical Century." The distinguishing mark of the age is a basically new form of manufacture. The early part of the century was dominated by the fabrication of existing materials by mass production methods; however, in the latter part of the century chemical processes are creating new materials. Chemical technology has moved so fast that this industry accounts for about a fifth of the total national products.

There is one dark cloud on the horizon for the chemical industry: the lack of trained personnel. CHEMICAL ENGINEERING reports, "The industry enters a new era in which the shortage of technical men will be a major controlling factor—if not limiting factor—in any future expansion plans." Among the workers needed are technicians who are capable of filling responsible positions in research, development and testing laboratories, in pilot plants and production.

The Chemical Technology curriculum at Broome Technical Community College is designed to prepare ambitious and reliable young men and women as technicians in this fast-growing industry.

CURRICULUM OUTLINE

TERM 1

(Fall Term)	Credit Hours
71 Communication Skills I --	3
81 Industrial Safety and First Aid -----	2
210 Mathematics -----	3
220 Physics (Heat, Light, Sound) -----	4
240 General Chemistry -----	6
20 Coordinating Conference -	1

TERM 2

(Winter Term)	
72 Communication Skills II -	3
91 Psychology -----	3
211 Mathematics -----	3
221 Electricity -----	4
241 General Chemistry -----	6
230 Engineering Drawing ---	2

TERM 3

(Spring or Summer Term)*

73 Communication Skills III_	3
243 Quantitative Chemistry --	6
250 Organic Chemistry -----	7

TERM 4

(Fall or Winter Term)*	Credit Hours
92 Economics I -----	3
212 Mathematics -----	3
244 Quantitative Chemistry --	6
251 Organic Chemistry -----	7
255 Industrial Chemistry ----	3

TERM 5

(Spring Term)

74 Communication Skills IV_	3
93 Economics II -----	3
245 Advanced Quantitative Analysis -----	5
256 Industrial Chemistry ----	6
296 Industrial and Labor Relations -----	3

* Student is in school one term and in industry one term during these periods.

CHEMICAL TECHNOLOGY

MATHEMATICS (210)

3 Credit Hours

Algebra with application to technical problems. Some of the phases covered are positive and negative numbers, factors and exponents, logarithms, binomial theorem, solution of linear and quadratic equations. The use of slide rule in the solution of problems.

MATHEMATICS (211)

3 Credit Hours

Plane trigonometry and graphical representation with emphasis on application to the student's field of study. The use of the slide rule in the solution of problems.

MATHEMATICS (212)

3 Credit Hours

Chemical calculations supplementary to the quantitative chemistry course. Problems used in making quantitative analysis calculations; oxidation-reduction, chemical factors, acid-base types, typical gas analysis.

GENERAL CHEMISTRY (240) (241)

12 Credit Hours

The laboratory work parallels the classroom theory and is designed to develop good work habits and the manipulative, observation, and reasoning powers of students. Included in the laboratory work is a systematic separation and identification of materials by employing different physical and chemical properties.

QUANTITATIVE CHEMISTRY (243)

6 Credit Hours

A course on the theoretical principles on which analytical

methods are based and their stoichiometric relationships. A study of the analytical balance, errors, precision and significant figures, preparation of samples for analysis; volumetric analysis by considering in detail neutralizations, oxidation-reduction, and volumetric precipitation.

A laboratory course demonstrates the principles by analyzing commercial products.

QUANTITATIVE CHEMISTRY (244) 6 Credit Hours

Gravimetric analysis with the study of equilibria involved, colloids, the formation and properties of precipitates, and the special methods such as electrodeposition, electrometric titration, and gasometric analysis.

ADVANCED QUANTITATIVE ANALYSIS (245) 5 Credit Hours

A study of the use and theory of operation of instruments commonly used in analytical chemistry. Primarily a laboratory course designed to give students a working knowledge of the capabilities of the instruments used in making quantitative determinations by the following methods: electrolysis, colorimeters, spectrophotometric methods, refractometer, chromatography, polarograph, chemical microscope, gas absorption, potentiometric methods.

ORGANIC CHEMISTRY (250) 7 Credit Hours

A basic study of the important classes of carbon compounds such as the aliphatic and aromatic groups, the alcohols, ethers, esters, carbonyl compounds, carboxylic acids, amines, polysubstitutes, mixed and heterocyclia compounds in terms of modern electronic and resonance theories. A laboratory course is taken along with the theory.

ORGANIC CHEMISTRY (251)**7 Credit Hours**

A study of special results of structures like tautomerism, rearrangements and stereoisomerism; the chemistry of dyes, carbohydrates, fats, and proteins. Some systematic identification of organic compounds. A laboratory course is taken along with the theory.

INDUSTRIAL CHEMISTRY (255)**6 Credit Hours**

A study of the industrial adaptation of chemical processes in the manufacturing of chemicals and allied products, involving quantities, yields, handling of materials, the most efficient types of equipment, and the factors of the flow of energy and its best utilization. This work is based on specific studies of fuels, the flow of fluids, heat transfer, and evaporation. A laboratory course conducted in a manner similar to industrial research is included.

INDUSTRIAL CHEMISTRY (256)**6 Credit Hours**

A continuation of Industrial Chemistry (255). Topics include size reduction and separation, humidity and air conditioning, drying, distillation and absorption.

ENGINEERING DRAWING (230)**2 Credit Hours**

An introductory course in mechanical drawing. Instruction in the use of instruments, drafting conventions, dimensioning, and orthographic projection. Emphasis on detail and working drawings, piping layouts, structural layouts and projects.

HEAT, LIGHT AND SOUND (220)**4 Credit Hours**

This course in physics is divided into three parts: heat, light and sound. The material covered in the light portion consists of

geometrical and physical optics, including the nature of light, reflection, refraction, lenses, optical instruments, polarization, emission and absorption of light.

In the heat portion of the course, a study of the measurement of temperature, expansion, calorimetry, change of state, heat and work, kinetic theory of gases and mechanical equivalent of heat.

In the sound portion, a study of wave motion and sound, sound waves and velocity of sound.

ELECTRICITY (221)

4 Credit Hours

A study of electricity and magnetism. Magnetic and electrostatic fields, electric potential, Ohm's law, measurement of resistance by voltmeter and ammeter and by Wheatstone's bridge; laws of electrolysis, cell combinations, potentiometer, electromagnetism, Lenz's law, inductance and capacitance, simple a-c and d-c circuits, elements of electrical machinery, thermocouples, and thermionic emission.

INDUSTRIAL AND LABOR RELATIONS (296)

3 Credit Hours

The study of human relations in industry which includes a study of the individual and why he behaves as he does, group behavior and the reduction of destructive conflicts between groups. General case studies in which the human element is isolated and studied.

DENTAL HYGIENE

More and more as time goes by, the need for Dental Hygienists becomes greater. The demand from the dental profession and others in need of the services of Dental Hygienists cannot be filled. Therefore the field of Dental Hygiene presents to the graduate an exceptional future.

The requirements for admission are a general academic high school course which must include the basic sciences.

The curriculum offers a well-rounded education including typing which will be helpful during the latter part of the course and after graduation. The student is taught manual dexterity, the various sciences, dental and gross anatomy, office practice, health education, radiology, nutrition and other subjects related to the dental profession. The length of the course is two years. Instruction includes lectures, laboratory work and clinical practice.

The laboratory is equipped with everything the student will need for introductory training.

The clinic is light and spacious and equipped with the most modern type of dental units and motor-driven chairs. The X-ray equipment is of the latest design.

Upon completion of the course, the student is eligible for the degree, Associate of Applied Science, and qualified to take the State Board examination for a license to practice the profession of Dental Hygiene.

CURRICULUM OUTLINE

TERM 1

(Fall Term)	Credit Hours
71 Communication Skills I _ _	3
82 First Aid _ _ _ _ _	2
700 Dental Manikin Practice I	3
710 Mathematics I _ _ _ _ _	3
740 Dental Anatomy I _ _ _ _	4
746 Histology and Embryology	3

TERM 2

(Winter Term)

72 Communication Skills II _	3
701 Dental Manikin Practice II	3
711 Mathematics II _ _ _ _ _	3
723 General Chemistry _ _ _ _	4
741 Dental Anatomy II _ _ _ _	1
748 Gross Anatomy and Physiology _ _ _ _ _	3
756 Office Practice I _ _ _ _	2
781 Health Services _ _ _ _ _	2

TERM 3

(Spring Term)

73 Communication Skills III _	3
703 Oral Hygiene I _ _ _ _ _	2
724 Biochemistry _ _ _ _ _	3
728 Bacteriology _ _ _ _ _	4
742 Dental Anatomy III _ _ _	1
749 Gross Anatomy and Physiology II _ _ _ _ _	3
757 Office Practice II _ _ _ _	2
782 Dental Health Education	2

TERM 4

(Fall Term)	Credit Hours
75 Effective Speaking _ _ _ _ _	3
91 Psychology _ _ _ _ _	3
704 Oral Hygiene II _ _ _ _ _	4
744 Preventive Dentistry _ _ _	3
751 Pharmacology _ _ _ _ _	2
754 Pathology _ _ _ _ _	3
783 Methods of Dental Health	3

TERM 5

(Winter Term)

92 Economics _ _ _ _ _	3
705 Oral Hygiene III _ _ _ _	4
753 Radiology _ _ _ _ _	3
758 Dental Office Practice I _	3
761 Nutrition _ _ _ _ _	3
785 Health Services in Schools	3

TERM 6

(Spring Term)

94 Sociology _ _ _ _ _	3
706 Oral Hygiene IV _ _ _ _ _	4
759 Dental Office Practice II	3
760 Dental Laboratory Practice _ _ _ _ _	3
764 School Organization _ _ _	3

DENTAL HYGIENE

DENTAL MANIKIN PRACTICE (700, 701) 6 Credit Hours

The manikin head with articulated teeth and simulated calculus is used for practice in the removal of deposits from around the teeth. In the second term students, upon showing sufficient advancement, begin practice upon each other.

ORAL HYGIENE (703, 704, 705, 706) 14 Credit Hours

By the time this portion of instruction is presented, the student will have developed sufficient skill and knowledge to advance to actual work on patients. The clinical work is under constant supervision.

MATHEMATICS (710) 3 Credit Hours

A review of fundamental operations with applications of decimal fractions, common fractions, percentage and proportion. A study of metric and apothecaries measures of weight and volume. Equivalent measures in household, metric and apothecaries systems with practice in the mathematics involved in the preparation of solutions and dosages.

MATHEMATICS (711) 3 Credit Hours

Continued practice in apothecaries, metric and household measures of weight and volume. Applications involved in the preparation of hypodermic and oral medications from concentrated solutions, tablets and full-strength drugs. Household accounting for personal use including interest, taxes, partial payments and installment buying.

GENERAL CHEMISTRY (723) 4 Credit Hours

The basic principles of chemistry with applications to meet the needs of the dental hygienist. The structure, properties and functioning of the various organic compounds with which the student comes in contact in pharmacology and which should be known in order to understand metabolism and other phases of biochemistry. Lectures, demonstrations, recitations and laboratory.

BIOCHEMISTRY (724)**3 Credit Hours**

The chemical nature, properties and functions of the carbohydrates, fats and proteins; enzyme action and digestion; metabolism; composition and functions of the blood and lymph; waste products of the body; vitamin and endocrine secretions. Lectures, demonstrations, recitations and laboratory.

BACTERIOLOGY (728)**4 Credit Hours**

The fundamentals of general and medical microbiology and the basic phases of immunology. Studies in methods of sterilization and disinfection, in staining and examining of bacteria, and in the methods employed in the separation of the species and their isolation and identification. Special attention to the flora of the oral cavity and the relation of bacteriological knowledge to the prevention of disease.

DENTAL ANATOMY (740, 741, 742)**6 Credit Hours**

Lectures on child and adult dentitions, the cranial nerves, and muscles of mastication, and bones of the skull and face. Carving and reproducing each tooth to scale in wax.

DENTAL ANATOMY (740, 741, 742)**6 Credit Hours**

Lectures on child and adult dentitions. Training in carving and reproducing each tooth to scale in wax.

PREVENTIVE DENTISTRY (744)**3 Credit Hours**

Lectures covering the principles of brushing, various methods of first aid in dentistry, descriptions of normal mouth conditions, known causes of decay, and methods of preventing tissue degeneration and oral infections.

HISTOLOGY AND EMBRYOLOGY (746)**3 Credit Hours**

This course aims to provide a fundamental knowledge of the origin and structure of the tissues of the oral cavity. The microscopic anatomy of the tooth tissues and their embryonic development are stressed. Pertinent facts from the basic biological sciences are included.

GROSS ANATOMY AND PHYSIOLOGY (748, 749)

6 Credit Hours

A study of the structure and function of the body as an integrated whole. An overview of skeletal, muscular, circulatory, respiratory, digestive and nervous systems. Vocabulary building.

PHARMACOLOGY (751)

2 Credit Hours

How to write prescriptions and the various combinations of ingredients. Drugs used in dentistry both for patients and office use. Abbreviations, weights and measures, dosage, narcotic and barbiturate laws. Detailed presentation in lecture form.

RADIOLOGY (753)

3 Credit Hours

Instruction in the technique of operation of the dental X-ray machine. The taking and uses of intra and extra oral films. The development and mounting of dental roentgenograms.

PATHOLOGY (754)

4 Credit Hours

The basic fundamentals of pathology with special emphasis on the tissues of the oral cavity.

OFFICE PRACTICE (756, 757)

4 Credit Hours

Typewriting, business correspondence, filing. Training in the operation of dictating and duplicating equipment .

DENTAL OFFICE PRACTICE (758, 759) 6 Credit Hours

A course to prepare the Dental Hygienist for practical office assistance covering all phases of the functioning of a dental office. Includes personality training, reception of patients, use of telephone, typing, care of dental equipment and instruments, inventory and ordering of supplies, recall system, billing, filing, and other duties necessary to the running of a dental office.

DENTAL LABORATORY PRACTICE (760) 3 Credit Hours

The laboratory phase of a dental office. Materials used in den-

tistry, the making of casts from impressions, selection of artificial teeth for various age groups, casting technique, gum carvings and esthetic setups of teeth on dentures.

NUTRITION (761) 3 Credit Hours

Lectures on food chemistry, results of dietary deficiencies, and the basis of correct diets for general and dental health.

SCHOOL ORGANIZATION (764) 3 Credit Hours

A study of the school program including personnel, curriculum and finance, the duties of administrative, supervisory and instructional service staffs and their inter-relationships.

HEALTH SERVICES (781) 2 Credit Hours

Lectures on the controls used over health services, the various types and their relation to public education. Special emphasis on dental health.

DENTAL HEALTH EDUCATION (782) 2 Credit Hours

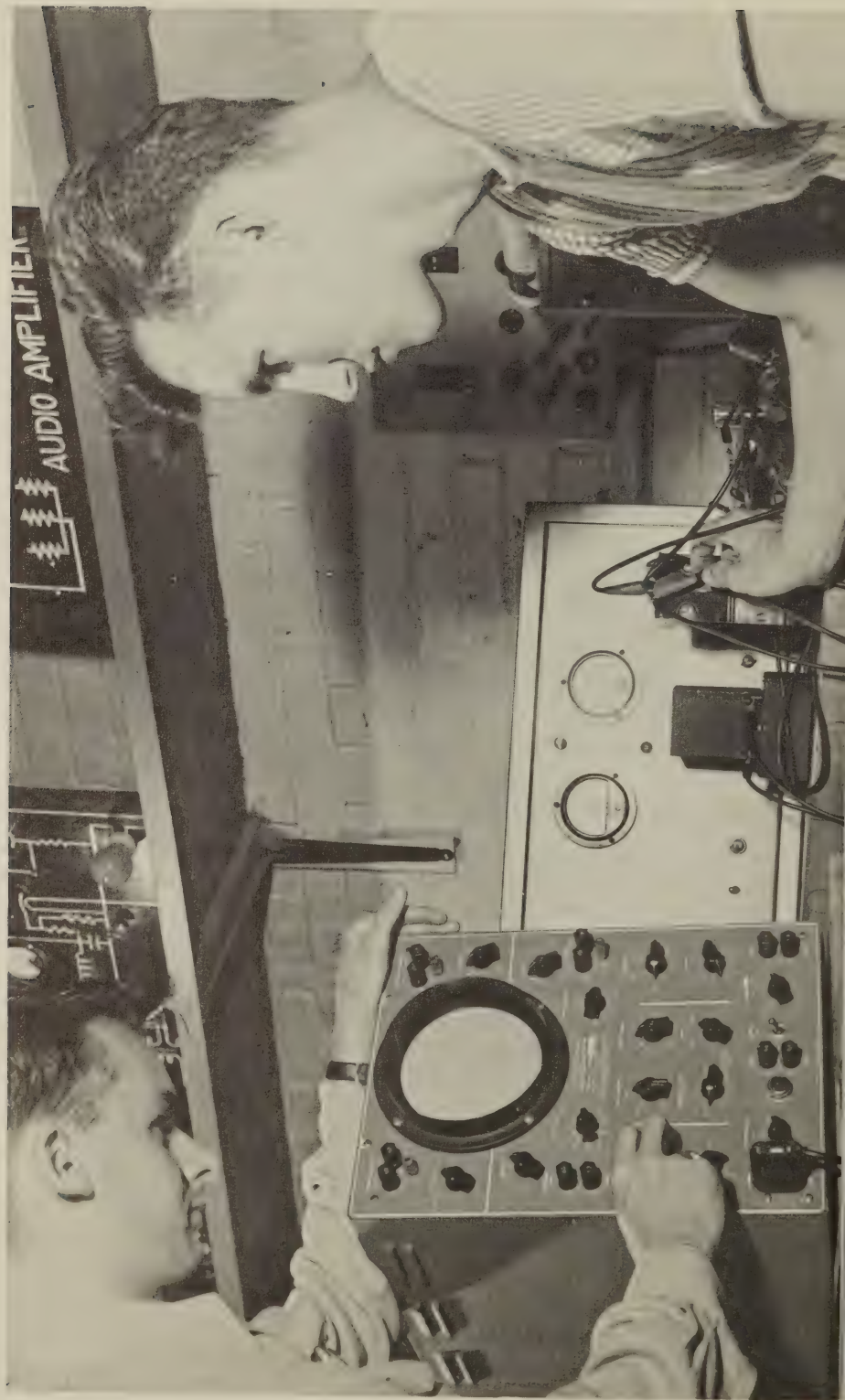
Lectures on various materials, techniques, clinics, sources of information, visual aids, charts, models, etc.

METHODS OF DENTAL HEALTH (783) 3 Credit Hours

Continuation of Dental Health Education. Further insight into such phases as age levels of individuals, records, reports.

HEALTH SERVICE IN SCHOOLS (785) 3 Credit Hours

Consideration of the Regents rules as related to health services, provisions of the Education Law, the Commissioner's Regulations; place and function of health service in public education. The co-ordination of the health service program with other community programs.



ELECTRICAL TECHNOLOGY

Electric power was first produced commercially in this country about 70 years ago. Today it has become an indispensable part of our daily living. It is an energizing force without which most industrial and even home activity would be impossible.

More than 87,000,000 kilowatts of electric power are installed in power plants of the country today. Evaluating horsepower as equivalent to 10 times the power of a man, the average factory worker is therefore supported by the equivalent of 75 slaves.

Needless to say, the human element is very important in this vast field. Thousands of people are needed—people to visualize, plan, build, direct and operate. Two-year technical colleges, like Broome Tech, are becoming increasingly important in preparing well trained men for the electrical field. Such colleges can train men to do highly specialized work of an engineering nature in less time than the normal four-year course.

Demand exceeds the supply of Broome Tech graduates for positions in power generation, communications, illumination, electronics, research and testing.

CURRICULUM OUTLINE

TERM 1

(Fall Term)	Credit Hours
71 Communication Skills ----	3
81 Industrial Safety and First Aid -----	2
300 Electrical Construction and Maintenance -----	2
310 Mathematics -----	3
330 Engineering Drawing ----	2
340 Electrical Circuits -----	5

TERM 2

(Winter Term)	
72 Communication Skills ----	3
91 Psychology -----	3
301 Electrical Construction and Maintenance -----	2
311 Mathematics -----	3
331 Engineering Drawing ----	2
341 Electrical Circuits -----	5
360 Mechanics -----	3

TERM 3

(Spring or Summer Term)*

73 Communication Skills ----	3
302 Electrical Construction and Maintenance -----	1
332 Electrical Design -----	2
312 Mathemtaics -----	3
345 Electrical Machines -----	5
348 Electronics -----	6

TERM 4

(Fall or Winter Term)*	Credit Hours
92 Economics -----	3
333 Electrical Design -----	1
346 Electrical Machines -----	5
349 Electronics -----	6
354 Industrial Control -----	4
394 Industrial Organization --	3

TERM 5

(Spring Term)

93 Economics -----	3
334 Electrical Design -----	1
347 Electrical Machines -----	5
350 Electronics -----	6
355 Industrial Control -----	4
395 Industrial Organization --	3

* Student is in school one term and in industry one term during these periods.

ELECTRICAL TECHNOLOGY

MATHEMATICS (310)

3 Credit Hours

Algebra with application to technical problems. Some of the phases covered are positive and negative numbers, factors and exponents, logarithms, binomial theorem, solution of linear and quadratic equations. The use of slide rule in the solution of problems.

MATHEMATICS (311)

3 Credit Hours

Plane trigonometry and graphical representation with emphasis on application to the student's field of study. The use of the slide rule in the solution of problems.

MATHEMATICS (312)

3 Credit Hours

The application of mathematics to the solution of problems in Electrical Technology.

ENGINEERING DRAWING (330)

2 Credit Hours

An introductory course in mechanical drawing. The technique of good lettering, practical geometry and geometric construction, the principles of orthographic projection and the theory and application of dimensioning.

ENGINEERING DRAWING (331)

2 Credit Hours

Technical sketching and pictorial representation. Applications of auxiliary views, sections and conventions used in orthographic projection. The types and representation of threads, nuts, bolts, keys, keyways and locking devices and assembly drawings. Discussion of shop processes and procedures to facilitate the understanding of drafting problems which arise in the industrial drafting room. Emphasis on free-hand sketching of mechanisms.

ELECTRICAL DESIGN (332)

2 Credit Hours

Electrical drafting to further the student's understanding of the principles of lighting design, wiring layouts, and the interpretation of schematic diagrams as applied to electrical control equipment.

The use of catalogs, charts, data sheets and the National Electrical Code book to obtain information needed for the layout and design of electrical circuits. Preparation of material lists and estimates of cost. Planning of lighting and control wiring layouts.

ELECTRICAL DESIGN (333)

1 Credit Hour

A further study of control circuit diagrams and outline drawings of panel and switch boards. Layouts of substations and transmission circuits. Interpretation of the schematic and one-line diagrams that are the engineering language of the electrical industry.

ELECTRICAL DESIGN (334)

1 Credit Hour

The application of electrical drafting in the field of electronics. Symbols, conventions, layout procedures, and circuit sequence that comprise an electronic circuit. The design of a circuit for an electronic device that the students may wish to construct, test and operate.

ELECTRICAL CIRCUITS (340)

5 Credit Hours

A study of d-c fundamentals; the solution of series, parallel, series-parallel, and complex circuits; magnetism, electro-magnetism, magnetic circuits, and instruments. Laboratory techniques, use and protection of equipment are correlated with the theory.

ELECTRICAL CIRCUITS (341)

5 Credit Hours

Continuation of work in direct current, covering inductance and capacitance. Alternating-current fundamentals; solution of series, parallel, and series-parallel circuits including use of polar vectors. The study of instruments and polyphase circuits.

ELECTRICAL MACHINES (345)

5 Credit Hours

A study of the theory of operation and characteristics of d-c machinery to give the student a sound background upon which he may base his judgment in solving problems that may arise in this field. A moderate amount of time devoted to design features. Considerable problem work for the purpose of giving the student a better understanding of the practical significance of the theory studied. Consideration of a few of the more basic types of specialized d-c machinery.

ELECTRICAL MACHINES (346)**5 Credit Hours**

First course in a-c machinery. A study of the theory and operation of power, auto and special transformers. Various connection methods of the above listed transformers. Alternator theory and operation.

ELECTRICAL MACHINES (347)**5 Credit Hours**

Second course in a-c machinery. A study of the theory and operation of polyphase induction, single-phase, and synchronous motors. Special emphasis on industrial applications.

ELECTRONICS (348)**6 Credit Hours**

Introductory course in electronics. The fundamentals of vacuum tubes and their application as rectifiers, amplifiers, oscillators, modulators and detectors, with emphasis on basic principles and applications.

ELECTRONICS (349)**6 Credit Hours**

A study of the properties of gas-filled tubes including thyratrons, ignitrons, glow tubes and mercury pool rectifiers. Industrial applications of electronic control such as electronic timing, photo-electric relays, resistance welding controls, and electronic motor control.

ELECTRONICS (350)**6 Credit Hours**

A study of the principles of operation of radio transmitters and receivers including both AM and FM types. Special circuits such as differentiators, integrators, peakers and multivibrators. Theory and applications of transmission lines and antennas.

INDUSTRIAL CONTROL (354)**4 Credit Hours**

Electrical device design and construction, and the methods of starting, stopping, braking and speed control of d-c motors. Special applications such as machine tool panels. Laboratory work in connecting, operating and trouble-shooting d-c control panels.

INDUSTRIAL CONTROL (355)**4 Credit Hours**

A study of the principles underlying the control of machinery and the commercial methods of accomplishing this. The theory of electric control and protective devices of d-c motors. A-c contractors, relays and protective devices for a-c motors. Starting, stopping, reversing, and braking devices for a-c motors. Safety precautions and maintenance of equipment. Wiring, maintenance and trouble-shooting of industrial control equipment.

MECHANICS (360)**3 Credit Hours**

A basic course in the principles of statics. The study of composition and resolution of forces, concurrent-coplanar forces, parallel forces, center of gravity, force couples, non-coplanar forces and friction. Some time will be devoted to the principles of dynamic forces.

ELECTRICAL CONSTRUCTION AND MAINTENANCE**(300), (301), (302) 5 Credit Hours**

A sequence of courses to familiarize the student with general trade practices and the acquiring of basic manipulative skills. A wide variety of experience in the installation and maintenance of electrical equipment. Basic training in different types of wiring systems used in industry and homes; trouble-shooting and repair of various types of electrical equipment; use of the lathe, drill press, shaper, welder, and other associated equipment. The study of the National Electrical Code Rules, general shop safety practices. Some electrical estimation work.

INDUSTRIAL ORGANIZATION (394)**3 Credit Hours**

A treatment of management essentials and the interrelationship of specialized functions together with the principles governing them. Includes organization of basic industrial structures, organizing physical facilities, developing the product, production and quality control.

INDUSTRIAL ORGANIZATION (395)**3 Credit Hours**

Administration of industrial relations: personnel management, employee training, job evaluation, merit rating, sales and budgetary control, and coordination of the enterprise. General case problems are studied.

MECHANICAL AND AUTOMOTIVE TECHNOLOGY

New York is the greatest industrial state in the nation. About one out of every five of the nation's factories lies inside its borders. Of the 453 types of industries classified by the Bureau of the Census, 430 are found in the State, a larger number than in any other state. Thirty percent of its workers are engaged in manufacturing as compared with 25% in the rest of the country.

In order to maintain and expand such concentrated industrial capacity, there must be a constant reservoir of trained men. Furthermore, the level of technical competence required in the mechanical field is becoming increasingly higher because of the complexity of modern machinery.

It is well known that industry today is concerned about the availability of engineering and technical personnel. This need is felt particularly in New York State because of the number and variety of its industries.

There is a broad area in industry in which the employment of graduate engineers is desirable but not essential; quality control, production, planning, drafting, time study, sales. More and more employers are turning to two-year technical graduates to fill positions on the technical level.

The two-year Mechanical Technology program at Broome Tech is preparing young men to take their places as technicians and engineering aides in the industries of New York and other states.

The curriculum offers, in the second year, an option in automotive technology to prepare young men to make proper diagnosis of and repair on cars and trucks. The fundamental sciences are applied to the operation and maintenance of the automobile. Some time is devoted to business management and accounting.

CURRICULUM OUTLINE

MECHANICAL TECHNOLOGY

TERM 1

(Fall Term)		Credit Hours
71	Communication Skills I	3
81	Industrial Safety and First Aid	2
91	Psychology	3
400	Shop I	2
410	Mathematics I	3
430	Engineering Drawing I	2
440	Mechanics	4

TERM 2

(Winter Term)		
72	Communication Skills II	3
401	Shop II	2
411	Mathematics I	3
421	Electricity I	4
431	Engineering Drawing II	1
441	Mechanics	3
445	Heat	4

TERM 3

(Spring or Summer Term)*		
73	Communication Skills III	3
402	Shop III	2
412	Mathematics III	3
432	Mechanisms	4
442	Strength of Materials	4
446	Metallurgy	4

TERM 4

(Fall or Winter Term)*		Credit Hours
92	Economics I	3
403	Shop III	2
413	Mathematics IV	3
433	Machine Design	4
448	Mechanical Machines I	4
460	Electricity II	4

TERM 5

(Spring Term)		
93	Economics II	3
404	Advanced Processes	2
434	Production Design	3
449	Mechanical Machines II	4
450	Quality Control	4
494	Industrial Organization	3

* Student is in school one term and in industry one term during these periods.

CURRICULUM OUTLINE

AUTOMOTIVE TECHNOLOGY

TERM 1

(Fall Term)		Credit Hours
72	Communication Skills I	3
81	Industrial Safety and First Aid	2
91	Psychology	3
400	Shop	2
400	Mathematics	3
430	Engineering Drawing	2
440	Mechanics	4

TERM 2

(Winter Term)		
72	Communication Skills II	3
401	Shop	2
411	Mathematics	3
421	Electricity I	4
431	Engineering Drawing	1
441	Mechanics	3
445	Heat	4

TERM 3

(Spring or Summer Term)*

73	Communication Skills III	3
402	Shop	2
412	Mathematics	3
432	Mechanisms	4
442	Strength of Materials	4
446	Metallurgy	4

TERM 4

(Fall or Winter Term)*		Credit Hours
92	Economics I	3
405	Automotive Shop	2
435	Design (Automotive)	4
451	Internal Combustion Engines	4
459	Automotive Electricity	4
465	Accounting I	3

TERM 5

(Spring Term)

93	Economics II	3
406	Automotive Shop	2
407	Transmissions	2
408	Diagnosis	2
452	Internal Combustion Engines	4
466	Accounting II	1
495	Business Management	3

* Student is in school one term and in industry one term during these periods.

MECHANICAL TECHNOLOGY

MATHEMATICS (410)

3 Credit Hours

Algebra with application to technical problems. Some of the phases covered are positive and negative numbers, factors and exponents, logarithms, binomial theorem, solution of linear and quadratic equations. The use of slide rule in the solution of problems.

MATHEMATICS (411)

3 Credit Hours

Plane trigonometry and graphical representation with emphasis on application to the student's field of study. The use of the slide rule in the solution of problems.

MATHEMATICS (412)

3 Credit Hours

A study of curves and equations, straight lines, conic sections, transformation of coordinates, polar coordinates, empirical equations, and graphs.

MATHEMATICS (413)

3 Credit Hours

A study of calculus fundamentals, functions and limits, differentiation of standard forms, maxima and minima, integration of standard forms, integration of more complex forms by various devices.

ENGINEERING DRAWING (430)

2 Credit Hours

An orientation course in the basic phases of engineering drawing including orthographic projection, pictorial representation, geometric construction and pattern development. Freehand sketching of models and machine parts.

ENGINEERING DRAWING (431)

1 Credit Hour

Continuation of Drawing (430) with emphasis on detail and assembly working drawings. Selected projects to illustrate the conventions and standards of welding, piping and tolerances.

MECHANISMS (432)**4 Credit Hours**

The study of machine motion and basic mechanisms. Instantaneous velocities in machine parts, gears, cams and the theory of their design and operation; fundamental principles of planetary gearing.

MACHINE DESIGN (433)**4 Credit Hours**

A basic course in machine design covering the selection of materials, stress investigation, and the design of the fundamental machine elements.

PRODUCTION DESIGN (434)**3 Credit Hours**

Process planning, selection of machinery, sequence of operations, speed and feeds, selection of standard tools, design of dies, jigs, fixtures and gages.

MECHANICS (440)**4 Credit Hours**

Basic principles of statics and dynamics; study of forces, friction work, power, energy, center of gravity, velocity and acceleration, curvilinear motion.

MECHANICS (441)**3 Credit Hours**

Further study of statics and dynamics, trusses, force systems in space, moment of inertia of areas and bodies, impulse and momentum.

STRENGTH OF MATERIALS (442)**4 Credit Hours**

The relationship between stress and strain; the calculation of stresses in machine parts, beams and columns; the use of shear and moment diagrams; the determination of moments of inertia and centers of gravity, and the analysis of the effect of loading on stress distribution. Tests on wood, concrete, plastics and metal on standard testing machines in accordance with the A. S. T. M. testing procedures.

HEAT (445)**4 Credit Hours**

The principles of temperature and thermometry. The study of thermal phenomena, expansion of solids, liquids, and gases, the three states of matter, calorimetry, conduction, convection, radiation, properties of air, elementary hydraulics.

METALLURGY (446)**4 Credit Hours**

The fundamentals of the physical metallurgy of ferrous and non-ferrous alloys. Investigation of the physical properties of metals. Hardness tests, thermal analysis and grain structure examination.

MECHANICAL MACHINES (448)**4 Credit Hours**

Energy equations, perfect gas relations, combustion processes, heat engines, internal-combustion engines, steam-power equipment; laboratory exercises.

MECHANICAL MACHINES (449)**4 Credit Hours**

Hydraulics, fluid mechanics, pumps, fans, compressors, refrigeration theory, heat transfer, air conditioning and surveying; laboratory exercises.

QUALITY CONTROL (450)**4 Credit Hours**

The use of inspection methods to secure the control of quantity production of complex assemblies. The use of statistical principles in sampling, and the determination of variables and standard quality.

ELECTRICITY (421)**4 Credit Hours**

The fundamentals of direct-current and alternating-current circuits; magnetism and induction. The study of electrical machines, motors, generators, relays, and transformers. The elements of electronics and the electronic circuits; uses of electronic devices in the control of mechanical equipment.

SHOP (400)**2 Credit Hours**

The elements of machine tool operations involving the use of

the lathe, miller, shaper and drill press, fundamental bench operations. Study of cutting speeds and feeds, coolants, threads, tapers, drills, reamers and cutting tool angles.

SHOP (401)

2 Credit Hours

Continuation of Shop (400) plus operations of the surface, cylindrical, internal and tool and cutter grinders, lapping, honing and scraping. Study of abrasives, grinding wheels and grinding methods.

SHOP (402)

2 Credit Hours

Advanced operations on the lathes and milling machines, boring, internal threading, gear cutting and spiral milling. Problems in precision hole location involving jig boring, mill boring and lathe boring. Study of boring methods, helix angles and precision methods of measurement.

SHOP (403)

2 Credit Hours

Use of inspection measuring instruments. The study of welding, forging and heat treating.

ADVANCED PROCESSES (404)

2 Credit Hours

An advanced study of strength of materials and metallurgy as applied to the manufacturing processes. The study of weld tests, corrosion, fatigue, creep, hardenability, stress concentration; laboratory work.

INDUSTRIAL ORGANIZATION (494)

3 Credit Hours

Physical facility requirements, principles of mass production, production planning and control, plant layout, industrial engineering.

ELECTRICITY (460)

4 Credit Hours

The study of electrical motors, generators, controls. The elements of electronics and uses of electronic devices in the control of mechanical equipment.

AUTOMOTIVE TECHNOLOGY

AUTOMOTIVE SHOP (405, 406)

4 Credit Hours

A study of the automobile engine and chassis including the service procedure for tires, wheels, brakes, steering, differential, headlights, radiator, engines and related parts.

TRANSMISSIONS (407)

2 Credit Hours

Principles of operation of fluid couplings, torque converters, planetary geartrains, servos and multiple-disc clutches. Practice in disassembly, repair, diagnosis, and maintenance of units of various manufacture.

DIAGNOSIS (408)

2 Credit Hours

Diagnosis of the electrical system, engine and component parts, carburetion and fuel systems of the automobile with the use of specialized testing units and diagnosis machines.

DESIGN (AUTOMOTIVE) (435)

4 Credit Hours

The application of standard data to engine transmission and chassis design. Discussion of such topics as gradeability, speed, weight balance, turning radii.

INTERNAL-COMBUSTION ENGINES (451, 452)

8 Credit Hours

Perfect gas laws, working fluids, fundamental energy relations applied to heat engines and internal-combustion engines. The ideal engines, their effect on design and function of actual engines, carburetion, ignition, combustion, volumetric efficiency, engine output. Laboratory exercises emphasizing these functions.

ACCOUNTING (465, 466)**4 Credit Hours**

The science of record keeping from the basic definition of terms and fundamental accounting equation through books of original entry, final entry, and trial balance. Numerous practical problems based on each topic. Adjusting, closing the books, worksheets, bad debts, depreciation, general and subsidiary ledgers, accounting practice set.

AUTOMOTIVE ELECTRICITY (459)**4 Credit Hours**

A study of the ignition, starting, charging, instrument, and lighting circuits of the modern automobile with laboratory testing of the various electrical components.



MEDICAL OFFICE ASSISTANT

In the field of medicine, always a fascinating one for many young women, a new and interesting career has opened up in the last few years—the Medical Office Assistant.

Broome Technical Community College prepares young women of ability and character for this career by offering specialized training combining secretarial work with clinical laboratory procedures. Experience has shown that intensive courses of instruction in the business field, together with clinical laboratory work, have prepared the graduates for good employment opportunities in physicians' offices, hospital laboratories and record rooms, and related fields.

The Medical Office Assistant must be versatile, fitted by training and personality to work with professional medical people in various ways. In addition to general education, she needs basic knowledge and skills such as typing, medical shorthand, accounting and office procedures. Anatomy, physiology, bacteriology, chemistry, and materia medica are working tools and a base for acquiring the vocabulary of medicine. Routine clinical laboratory procedures in urinalysis, hematology and blood chemistries complete the curriculum.

Graduates, too few to meet the demand, are finding satisfaction, variety, and opportunity in this important phase of medical service.

CURRICULUM OUTLINE

TERM 1

(Fall Term)	Credit Hours
71 Communication Skills I --	3
501 Typewriting I -----	2
504 Shorthand I -----	3
510 Mathematics I -----	3
543 Anatomy and Physiology -	4
°(See note below)	

TERM 2

(Winter Term)	
78 Communication Skills II	3
502 Typewriting II -----	2
505 Shorthand II -----	3
511 Mathematics II -----	3
544 Anatomy and Physiology II -----	3
560 Elements of Chemistry I -	4

TERM 3

(Spring Term)	
73 Communication Skills III	3
91 Psychology -----	3
503 Typewriting III -----	2
506 Shorthand III -----	3
545 Clinical Laboratory I ---	3
555 Office Procedure -----	2
561 Elements of Chemistry II	4

TERM 4

(Fall Term)	Credit Hours
92 Economics I -----	3
507 Transcription -----	3
540 Accounting I -----	3
546 Clinical Laboratory II --	3
550 Bacteriology I -----	2
562 Elements of Electricity --	4

TERM 5

(Winter Term)	
82 First Aid -----	2
93 Economics II -----	3
508 Medical Shorthand I ---	3
541 Accounting II -----	3
547 Clinical Laboratory III -	3
551 Bacteriology II -----	2
556 Office Practice -----	2

TERM 6

(Spring Term)	
74 Communication Skills IV -	3
509 Medical Shorthand II --	3
548 Clinical Laboratory IV --	3
549 Materia Medica -----	3
552 Pediatrics -----	2
557 Office Practice and Accounting -----	2
558 Business Law -----	3

° Persons who have passed Typewriting and/or Shorthand will be expected to take Transcription for skill maintenance.

MEDICAL OFFICE ASSISTANT

TYPEWRITING (501), (502)

4 Credit Hours

Mastery of the keyboard by touch; operation and care of the typewriter; writing business letters; addressing envelopes; manuscript typing; development of speed.

TYPEWRITING (503)

2 Credit Hours

Continuation of basic skill-building with emphasis on speed and advanced problems. Rough drafts, medical data, manuscripts, legal papers.

SHORTHAND (504), (505)

6 Credit Hours

Presentation of principles of the new simplified Gregg Shorthand; reading and writing in shorthand; development of dictation speed.

SHORTHAND (506)

3 Credit Hours

More emphasis on the building of transcription skill. Further drill for dictation speed. Some beginning of medical dictation.

TRANSCRIPTION (507)

3 Credit Hours

Development of skill in reading shorthand notes and turning out from them a mailable transcript on the typewriter.

MEDICAL SHORTHAND (508), (509)

6 Credit Hours

Dictation of medical material to be transcribed on the typewriter. Further drives for speed at taking dictation under the same

standards described in "Shorthand." The building of medical vocabulary which can be taken in shorthand and transcribed accurately on the typewriter. The use of medical dictionaries.

MATHEMATICS (510)

3 Credit Hours

Review of common and decimal fractions with their application in percentage and proportional problems. A study of metric and apothecaries' measures of weight and volume used in the preparation of solutions and dosages. Equivalent measures in household, metric and apothecaries with practice in converting from one system to another. Mathematics involved in the preparation of hypodermic and oral medications, from concentrated solutions, tablets or full-strength drugs.

MATHEMATICS (511)

3 Credit Hours

Short methods and checking of accuracy in the fundamental processes. The use of fractions in business. Practice with decimals and percentage. A study of the mathematics used in banking, profits, discounts, partial payments, wages, interest, pricing of merchandise and installment buying in preparation for accounting.

ACCOUNTING (540)

3 Credit Hours

The science of record keeping from the basic definition of terms and the fundamental accounting equation through books of original entry, final entry, and the trial balance. Numerous practical problems based on each topic.

ACCOUNTING (541)

3 Credit Hours

A continuation of Accounting (540) adjusting, closing the books, worksheet, bad debts, depreciation, obsolescence, general and subsidiary ledgers. Problems and set.

ANATOMY & PHYSIOLOGY (543), (544) 7 Credit Hours

A study of the structure and function of the body as an integrated whole. An overview of skeletal, muscular, circulatory, respiratory, digestive system and nervous system. Vocabulary building.

CLINICAL LABORATORY (545), (546), (547), (548) 12 Credit Hours

A sequence of courses in the study and practice of clinical techniques employed in the doctor's offices and hospital laboratories. Included are urinalysis, hematology and blood chemistry. Some of the procedures covered: blood counts, hemaglobin determination, color index, blood sugar, cholesterol, and non-protein-nitrogen determination.

MATERIA MEDICA (549) 3 Credit Hours

A study of the various classes of commonly used drugs and their effects on the human body. The administration of medicines and the uses of antiseptics and disinfectants.

BACTERIOLOGY (550), (551) 4 Credit Hours

A study of the micro-organisms that cause disease in man, including a brief discussion of their size, shape, staining reactions and the manner in which they grow; micro-organisms that cause typhoid, tuberculosis, diphtheria and tetanus; the ways and means by which the human body combats the various infectious organisms.

PEDIATRICS (552) 2 Credit Hours

Emphasis on the child as an individual in both health and disease, from the standpoint of his total well-being from birth to school age. An overview of the common diseases of childhood.

OFFICE PROCEDURE (555) 2 Credit Hours

Some of the practical office procedures used in a physician's

office, such as the correct use of the telephone, sterilization of instruments and gloves, the keeping and filing of patients' records, the general care of the office. Professional ethics.

OFFICE PRACTICE (556)

2 Credit Hours

Basic training in the operation of various types of adding machines, dictating equipment and transcribing. Stencil and spirit duplicating. Experience at alphabetic, numeric, and subject filing.

OFFICE PRACTICE & ACCOUNTING (557)

2 Credit Hours

Practical use of medical forms used by Insurance, Workmens' Compensation and Welfare Departments. Practical set of physicians' financial records.

BUSINESS LAW (558)

3 Credit Hours

A basic understanding of our courts, legal procedures, and working knowledge of legal principles. Emphasis throughout the study on the fundamental law of Contracts and its applications to sales, bailments, negotiable instruments, agency, insurance and property.

ELEMENTS OF CHEMISTRY (560), (561)

8 Credit Hours

The fundamental laws and theories of chemistry together with the properties and uses of the common elements, both metallic and non-metallic, and their compounds. Laboratory work illustrating the basic principles of chemistry to enable the student to examine the behavior of elements and compounds.

ELEMENTS OF ELECTRICITY (562)

4 Credit Hours

A course of basic electricity, light, and sound with emphasis on the application to every-day life and the medical field.

GENERAL EDUCATION

Considerable emphasis is placed on the vocational objectives in all the curriculums. However, the College is equally concerned with the broader objective of well-rounded personal development.

A worker does not function in a vacuum. He works with and for others, makes decisions which affect himself and others, expresses his views, is aware of the value of good health. Outside of working hours he has obligations to his family, takes part in community affairs, and is concerned with the welfare of his country and its relations with other countries.

All of these activities influence his effectiveness as a worker and a member of society. Therefore General Education should be and is an important part of the College instruction.

Communication Skills courses seek to develop an appreciation of language as a means of communication, and facility in the use of the spoken and written word.

A sequence of courses in Economics is concerned with a study of the American economic system.

Psychology gives the students an insight into human nature which will prepare them for acceptable service in the industrial and professional world.

Students in the technology curriculums are given instruction in industrial safety practices and first aid, and an introduction to the rapidly expanding field of industrial and labor relations.

In these non-technical studies and in the varied program of student activities described elsewhere, opportunity is given to develop the skills, knowledge and attitudes for the living of a satisfactory life.

GENERAL EDUCATION

COMMUNICATION SKILLS (71)

3 Credit Hours

The first in a sequence of courses to develop the skills of reading, writing, speaking and listening. A study of the nature of the English language: history, symbolism, context, denotation, connotation, emotive language, report language. Similarities and differences of oral and written English. Parliamentary procedure. Presentation of oral and written reports (throughout the sequence).

COMMUNICATION SKILLS (72)

3 Credit Hours

A study of the levels of usage and grammar, and the effective organization of ideas. Development of reading skill.

COMMUNICATION SKILLS (73)

3 Credit Hours

Business correspondence. Types and techniques of group discussion. A study of the media of mass communication—press, films, radio, television.

COMMUNICATION SKILLS (74)

3 Credit Hours

Advanced writing and speaking problems. Technical reports. Participation in panels and symposiums.

COMMUNICATION SKILLS (74)

3 Credit Hours

The course is designed to broaden the student's understanding of our culture by introducing him to some challenging ideas of recognized writers. Through selected readings the student is encouraged to improve the quality of his thinking and to develop his skill of expression by means of class discussions and oral and written reports.

EFFECTIVE SPEAKING (75)

3 Credit Hours

Designed to help the student master the elements of speech communication through voice, words and action. Study of voice production, diction, platform presence, organization of ideas. Practice in presenting speeches of different types.

INDUSTRIAL SAFETY AND FIRST AID (81)

2 Credit Hours

A study of accident sources and causes; safety as a responsibility of workers and management; job safety analysis; education, training, supervision, and organization for safety; accident reports and records; the principles of First Aid as applied to industry.

HEALTH (82)

2 Credit Hours

The fundamental principles of First Aid as outlined by the Standard Red Cross course such as prevention and treatment of shock, burns, wounds and hemorrhage. Demonstration and practice of artificial respiration. The second phase of the course consists of the basic fundamentals of nutrition, including individual differences and requirements.

PSYCHOLOGY (91)

2 Credit Hours

Designed to give the students insight into human nature which will prepare them for acceptable service in employment. Personality development, techniques involved in dealing with people, vocational adjustment and efficiency, intelligence, learning, leadership, and mental hygiene.

ECONOMICS (92)

3 Credit Hours

A study of the American economy. A survey of occupational objectives; professional ethics; fundamental economic principles; standards of living in the United States; production; marketing; forms of business ownership; large-scale business enterprise; prices; monopoly; our national income; distribution of personal income in the United States; money, credit, banking; America's role in international finance.

ECONOMICS (93)**3 Credit Hours**

A continuation of the study of basic principles of the American economic system and their applications. Taxation and public finance; labor-management relations and their effect upon the public; business-cycles in the United States; international trade and other international economic relations; how our political policies affect the rest of the world; American democracy and capitalism compared to other political and economic systems; economics of war and peace.

SOCIOLOGY (94)**3 Credit Hours**

American Society and its activities, including public opinion and propaganda, race relations ,education as a social force, the family in modern society, public health, housing, interaction between government and society, recreation and leisure activities, immigration, social change, and social security.

EXTENSION DIVISION

The Extension Division of the college offers both sequential programs and unit courses on a part-time basis to employed persons. Its purpose is to provide opportunity for adults of the community to extend their education in specialized fields.

The sequential programs consist of accredited college-level curriculums in the fields of Chemical, Electrical, Mechanical, Business, and Industrial Management Technology. The Extension Diploma is awarded to those who successfully complete the required curriculums, which consist of approximately thirty-two semester hours. It is expected that the average student can complete these curriculums in three and one-half to four years on the basis of attending classes two evenings a week during each of the two semesters per year. Admission requirements for students in the diploma program are the same as for the day students.

The Extension Division also offers shorter programs and unit courses in Traffic Management, Industrial Purchasing, and other areas where there is an expressed need and where the college can furnish the necessary facilities. Admission requirements for these courses are dependent on each individual course as outlined in the Extension Division announcement.

Tuition is charged at the rate of \$10 per credit hour for all courses. These programs are approved by the Veterans Administration. Applicants wishing to obtain veteran's educational benefits should consult their nearest veteran's agency.

For further information or announcement of courses contact the Director of Extension, Broome Technical Community College.

QUESTIONS AND ANSWERS

What are the entrance requirements?

A candidate seeking admission to the College is expected to have completed a four-year high school course consisting of a minimum of 16 units which have adequately prepared him to pursue a college program.

An applicant must meet the minimum requirements of physical ability required by the occupational field in which he wishes to engage.

He must show evidence of good moral character.

He must be recommended by his high school principal or guidance counselor.

It is recommended that an applicant have the following high school preparation:

Technology Curriculum

Mathematics	3 units
(including elementary algebra, plane geometry, intermediate algebra)	
Science	2 units
(chemistry for Chemical Technology, physics for Electrical Technology, physics and/or chemistry for Automotive Technology)	

Business Technology

Mathematics	2 units
(including elementary algebra)	
Science	2 units
(including chemistry or physics)	

NOTE: For those who may be deficient in mathematics, a course in mathematics is offered each summer, prior to the opening of the Fall term. Those who need to enroll in this course must be submit the completed College application form no later than June 15.

How long are the courses?

All programs are two years in length. The college year is di-

vided into four terms of approximately thirteen weeks each. Those students enrolled in the technical curriculums spend a total of five terms on campus and two terms in industry on the cooperative phase of their education. Students in the six-term curriculums spend three terms on campus each year.

Classes are scheduled from 8:00 A. M. to 5:00 P. M. Monday through Friday.

What is the cost?

TUITION

For New York State residents	\$300.00 per year (payable at the rate of \$100.00 per term)
For out-of-State residents	\$600.00 per year (payable at the rate of \$200.00 per term)

FEES

Student activity	\$23.00 per year*
Health	\$18.00 per year
Lock deposit (First year only)	\$2.00
Graduation	\$10.00**

* The \$10.00 deposit required with the application becomes advance payment on the activity fee if the applicant is accepted.

** This fee is paid at the start of the term preceding graduation. Any refund of fees is at the option of the College.

BOOKS AND SUPPLIES

Each student provides at his own expense the necessary books and instructional materials. These may be purchased at the Book Store maintained by the Faculty-Student Association for the convenience of the students. The cost varies, depending on the curriculum, from \$50.00 to \$100.00 per year.

BOARD AND ROOM

The cost of board and room for out-of-town students is dependent upon the demands of the student. The average cost varies from \$12.00 to \$20.00 a week.

Are there opportunities for financial aid?

Many young people are denied the advantages of higher education because of the cost. Broome Technical Community College is vitally concerned that all high school graduates who can benefit by the type of education offered may have the chance to do so. Below are listed several opportunities for self-support without the necessity of time-consuming outside work.

COOPERATIVE WORK PROGRAM

In the work-study plan students are placed in jobs related to their major field of study for two separate employment periods. Students are paid the prevailing wage for the job they do. Cooperative students in the technology curriculums average \$1,200 for the two periods.

The program offers other distinct advantages:

1. It is exploratory. The student has a chance to survey and evaluate a number of different jobs within his field. At the same time he can take stock of his own abilities and interests.
2. It is an opportunity to correlate classroom studies with actual work experience.
3. It is a means of demonstrating the importance of human relations in the work situation.

Cooperative work students are expected to "earn their own way," to perform the duties required without special favor. At the end of each period employers submit a report covering the student's performance. These reports become a part of the student's permanent record.

SCHOLARSHIPS

Recipients of New York State Regents scholarships may use the scholarships to defray their expenses at the College. A number of scholarships are offered by the following local groups: Civic Club of Binghamton, Triple Cities Business and Professional Women's Club, Binghamton Chapter of the National Secretaries' Association.

LOANS

A Student Loan Fund has been established by business and industry in this area. Information and application forms may be obtained from the Dean.

Small loans are available to deserving students who are in temporary need of financial assistance.

What about living accommodations?

The college does not maintain dormitories. Local students of course live at home. Out-of-town students who have relatives or friends within commuting distance of the college will find it more economical to live with them if possible. Other students are required to live in rooms which have been inspected and approved, or at the Y.M.C.A. or Y.W.C.A.

Lists of approved rooms are maintained, and students are assisted in finding suitable living quarters.

WHAT ARE THE ACADEMIC STANDARDS?

Grading System

GRADE	POINTS PER CREDIT HOUR
A	4
B	3
C	2
D	1
P	0
F	0

A—Outstanding

Exceptional ability. Accomplishment and initiative merit special recognition.

B—Good

Above average in accomplishment and responsibility.

C—Satisfactory

Average in accomplishment and responsibility.

D—Fair

Below average in accomplishment and responsibility.

P—Poor

Accomplishment unsatisfactory for honor points but sufficient to form basis for future work.

F—Failing

Accomplishment insufficient to form basis for future work .

Scholastic standing

To remain in satisfactory standing, a student must earn a point average of 1.2 the first term, 1.4 the second term, 1.5 the third term, and 1.5 for each succeeding term until graduation.

In order for a student to remain in good standing he must also demonstrate a mature attitude of interest and cooperation.

Grades are issued at the end of each term. All students doing unsatisfactory work at midterm will be counseled.

Any student who does not maintain this minimum point average in any term is placed on probation for the following "on campus" term.

Honors

At the end of each term students who have earned an average of 3.0 or above are placed on the Honor Roll. Those who have earned 3.5 or better are named to the President's High Honor List.

Dismissal

Students may be considered for dismissal for the following causes: more than one consecutive probationary period; failure to earn a point average of 0.8 the first term, 0.9 the second term, and 1.0 for each succeeding term; irregular attendance; neglect of work or financial obligations; failure to comply with college rules and official notices; conduct unbecoming a student.

Any action leading to the requested withdrawal of a student is taken up by the Executive Committee. A student may be readmitted by favorable action of the Committee. The college reserves the right to be the sole judge in all matters pertaining to dismissal.

Withdrawal

A student compelled to withdraw at any time must immediately notify the Admissions Office and complete the proper termination form. Failure to comply with this regulation will cause the individual to forfeit his right to honorable dismissal and to lose any refund of fees.

What are the requirements for graduation?

Satisfaction of the college requirements as a regular student.

Completion of all specified subjects and projects for the curriculum in which the student is enrolled.

An honor point total of 7.1 in the five-term curriculums(technical), or 8.6 in the six-term curriculums.

Satisfactory financial standing at the college.

What degree is offered?

Students who complete the requirements for graduation in the full-time day curriculums are awarded the degree, Associate in Applied Science.

What about placement?

Each Department Head is in charge of cooperative and permanent placement for the students in his department. The demand for Broome Tech graduates is consistently greater than the supply, and most seniors have several employment offers from which to choose.

After graduation—what?

Each graduate is entitled to two transcripts of his work completed at the College. One dollar is charged for each additional transcript.

Graduates are eligible for membership in the Broome Tech Alumni Association. Two annual events highlight the Association's Activities: Spring Day, featuring an Alumni-Varsity baseball game and a picnic, and early in December a dinner, election of officers, and an Alumni-Varsity basketball game.

Graduates who are working nearby are urged to take advanced courses offered in the Evening Extension Division.

What about veterans?

All full-time curriculums are approved by the Veterans Administration. Those applicants wishing to obtain government educational benefits should consult their nearest veteran agency.

WHAT CO-CURRICULAR ACTIVITIES ARE OFFERED?

The College recognizes that students need the stimulus and diversion of co-curricular activities and that students themselves should originate and carry out a varied and flexible program under faculty supervision. Every student is urged to make his contribution to and derive his benefits from one or more of the following activities.

The Student Council

The student governing body is the Student Council with officers elected from the student body at large, and representatives from the various curriculums. It has the responsibility of promoting and coordinating student affairs. It authorizes the establishment of new clubs and activities and allocates to the organizations funds paid by the students as the Activity Fee. This fee entitles students to admission to varsity games, informal dances and parties, and a subscription to the yearbook and Tech Talk, student newspaper.

Athletic Committee

The Athletic Committee supervises the expenditure of money for athletic purposes and makes recommendations for improvements in the sports program.

Varsity Sports

The name "Hornets" has become well known in Eastern inter-collegiate sports. Varsity sports are basketball, baseball, volleyball, golf and tennis. The basketball and baseball teams has been particularly successful in competition against other two-year colleges. The varsity volleyball team, more recently organized, is coming to be recognized as a power in intercollegiate and tournament play.

Intramural Sports

Students of average athletic ability have an opportunity to participate in intramural sports. Teams representing the various curriculums make up the leagues in basketball, volleyball and bowling.

Cheerleaders

Positions on the varsity and junior varsity cheerleading squads are open to both men and women on a competitive basis.

Social Committee

The Social Committee has charge of planning dances, parties and picnics. Most of the affairs are informal and are held in the gymnasium.

Convocation Committee

A joint student-faculty committee has the responsibility of planning the convocation programs.

Publications

Tech Talk is the student newspaper published once a month and devoted to the reporting of news and features of College life. The yearbook is known as the Citadel. Positions on both publications are open to students interested in writing, art and advertising.

Music

Three organizations attract students who are musically inclined. The Glee Club is composed of both men and women and appears at student and community affairs. The Dance Band, when talent is available, furnishes music for informal college dances. Mu Alpha Sigma is a society devoted to the development of music appreciation.

Camera Club

For those interested in photography the Camera Club provides the chance to get experience in picture taking, developing, printing and enlarging. A well-equipped darkroom is available for student use. Most of the photographic work on the newspaper and yearbook is done by members of the club under faculty supervision.

Varsity Club

Lettermen in the major sports are eligible for membership in

the Varsity Club, whose purpose is to further interest in inter-collegiate competition.

Awards

Outstanding participation in the above activities is recognized by a system of awards consisting of sweaters, jackets, letters, pins, and certificates.

Newman Club

The Newman Club is an informal group organized to foster a better understanding of Catholic ideology. The program features religious lectures and discussions, and social events.

Technical Societies

Students in the technology curriculums have the privilege of becoming associated with professional men in their field by joining the student chapter of one or more of the technical societies:

Southern Tier Technical Society—student member

American Institute of Electrical Engineers—student member of local chapter

American Chemical Society—student associate of local chapter

Each student society has its own program. In addition, members may attend meetings of the senior chapter, hear lectures given by outstanding men in technical fields, and see films and demonstrations on new developments.

Student-Faculty Association

This is a non-profit organization, incorporated under the laws of New York State, operated by faculty officers with a student advisory board. The Association operates the bookstore, cafeteria, vending machines, pay telephone, and the faculty parking lot.





What is the application procedure?

New students are admitted only in September of each year. However, applications will be accepted at any time during the year.

An application for admission must be made on official forms supplied by the College. Those forms may be obtained on request at the Admissions Office.

A deposit of \$10 must accompany each application. This deposit is applied as an advance payment on the student activity fee if the applicant is accepted. It will be refunded if the applicant is not accepted. It will not be refunded if the applicant fails to report for registration after acceptance.

Upon receipt of the completed application form by the Admissions Office, a certificate of residence will be supplied, which should be signed by the proper official of the county of residence.

Each applicant will be interviewed by the members of the Committee on Admissions. An appointment will be made after the applicant's deposit, application and other required credentials have been received. Appointments for interviews will normally be made after January first of each year.

Transfer Students

Applications are accepted from students who have been enrolled in other accredited colleges if they submit satisfactory entrance requirements.

Transfer of credit for advanced standing is subject to the approval of the Department Head and the Director of Admissions.

Consideration will not be given to any subject for transfer credit which carries a grade of less than "C."

Late Registration

An applicant may not register more than seven days after the beginning of the Fall term except by special permission.

CALENDAR 1957-1958

FALL TERM

September 3, 1957	9:00 A. M.	Senior Registration and Start Cooperative Period
	1:00 P. M.	Freshman Registration
September 4, 1957	8:00 A. M.	Classes Begin
November 27, 1957	12:00 Noon	Fall Term Ends
November 29, 1957		Cooperative Period Ends

WINTER TERM

December 2, 1957	8:00 A. M.	Registration and Start Cooperative Period
December 20, 1957	5:00 P. M.	Christmas Recess Begins
January 6, 1958	8:00 A. M.	Christmas Recess Ends
March 6, 1958	5:00 P. M.	Winter Term Ends
March 7, 1958		Cooperative Period Ends

SPRING TERM

March 10, 1958	8:00 A. M.	Registration and Start Cooperative Period
April 3, 1958	5:00 P. M.	Easter Recess Begins
April 8, 1958	8:00 A. M.	Easter Recess Ends
May 29, 1958	5:00 P. M.	Decoration Day Recess Begins
June 2, 1958	8:00 A. M.	Decoration Day Recess Ends
June 5, 1958	5:00 P. M.	Spring Term Ends
June 6, 1958		Cooperative Period Ends
June 7, 1958	2:00 P. M.	Graduation

SUMMER TERM

June 9, 1958	8:00 A. M.	Registration and Start Cooperative Period
July 3, 1958	5:00 P. M.	Independence Day Recess Begins
July 3, 1958	8:00 A. M.	Independence Day Recess Ends
August 28, 1958	5:00 P. M.	Summer Term Ends
August 29, 1958		Cooperative Period Ends

REQUEST FOR APPLICATION FOR ADMISSION

Mail to

Director of Admissions
Broome Technical Community College
Binghamton, New York

NAME -----

ADDRESS -----

HIGH SCHOOL -----

I am interested in the curriculum checked below:

Automotive Technology----

Business Technology----

Chemical Technology----

Dental Hygiene----

Electrical Technology----

Mechanical Technology----

Medical Office Assistant----

Please send the Evening Division Catalog-----

STATE UNIVERSITY OF NEW YORK

LIBERAL ARTS COLLEGE

HARPUR COLLEGE AT ENDICOTT

MEDICAL COLLEGES

DOWNSTATE MEDICAL CENTER IN NEW YORK CITY
UPSTATE MEDICAL CENTER IN SYRACUSE

TEACHERS COLLEGES

COLLEGE FOR TEACHERS AT ALBANY
TEACHERS COLLEGE AT BROCKPORT
COLLEGE FOR TEACHERS AT BUFFALO
TEACHERS COLLEGE AT CORTLAND
TEACHERS COLLEGE AT FREDONIA
TEACHERS COLLEGE AT GENESEO
TEACHERS COLLEGE AT NEW PALTZ
TEACHERS COLLEGE AT ONEONTA
TEACHERS COLLEGE AT OSWEGO
TEACHERS COLLEGE AT PLATTSBURGH
TEACHERS COLLEGE AT POTSDAM

OTHER PROFESSIONAL COLLEGES

COLLEGE OF FORESTRY AT SYRACUSE
MARITIME COLLEGE AT FORT SCHUYLER
COLLEGE OF CERAMICS AT ALFRED UNIVERSITY
COLLEGE OF AGRICULTURE AT CORNELL UNIVERSITY
COLLEGE OF HOME ECONOMICS AT CORNELL UNIVERSITY
SCHOOL OF INDUSTRIAL AND LABOR RELATIONS AT CORNELL UNIVERSITY
VETERINARY COLLEGE AT CORNELL UNIVERSITY

AGRICULTURAL AND TECHNICAL INSTITUTES

AGRICULTURAL AND TECHNICAL INSTITUTE AT ALFRED
AGRICULTURAL AND TECHNICAL INSTITUTE AT CANTON
AGRICULTURAL AND TECHNICAL INSTITUTE AT COBLESKILL
AGRICULTURAL AND TECHNICAL INSTITUTE AT DELHI
AGRICULTURAL AND TECHNICAL INSTITUTE AT FARMINGDALE
AGRICULTURAL AND TECHNICAL INSTITUTE AT MORRISVILLE

LOCALLY-SPONSORED TWO-YEAR COLLEGES

(Under the program of the State University of New York)

AUBURN COMMUNITY COLLEGE AT AUBURN
BROOME TECHNICAL COMMUNITY COLLEGE AT BINGHAMTON
ERIE COUNTY TECHNICAL INSTITUTE AT BUFFALO
FASHION INSTITUTE OF TECHNOLOGY AT NEW YORK CITY
HUDSON VALLEY TECHNICAL INSTITUTE AT TROY
JAMESTOWN COMMUNITY COLLEGE AT JAMESTOWN
MOHAWK VALLEY TECHNICAL INSTITUTE AT UTICA
NEW YORK COMMUNITY COLLEGE OF ARTS AND SCIENCES
ORANGE COUNTY COMMUNITY COLLEGE AT MIDDLETOWN
STATEN COMMUNITY COLLEGE STATEN ISLAND
WESTCHESTER COMMUNITY COLLEGE AT WHITE PLAINS

